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Question Paper Code : 10406

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Elective

Big Data Analytics

CP 5074 — SOCIAL NETWORK ANALYSIS

(Common to M.E. Biometrics and Cyber Security/M.E. Computer Science and Engineering/M.E. Computer Science and Engineering (With Specialization in Networks)/M.E. Multimedia Technology/M.Tech. Information Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is semantic web?
2. Define a social network.
3. Outline a directed graph with an example.
4. Define ontology.
5. Differentiate between descriptive and predictive data mining.
6. Outline an association rule with an example.
7. What is a web archive?
8. Write a note on viral marketing.
9. Define emotion.
10. What is a biometric? Give example.

PART B — (5 × 13 = 65 marks)

11. (a) What are the limitations of current web? Outline the development of semantic web.

Or

- (b) Present an outline of the following:
- (i) Emergence of social web (7)
 - (ii) Blogs and online communities. (6)

12. (a) What is visualization of social networks? Present an outline of analysis and visualization of social networks with an example.

Or

- (b) Outline the analysis of social networking data using MapReduce and Hadoop.

13. (a) Outline the steps in aggregating social network data with an example.

Or

- (b) What is community mining? Outline the applications of community mining.

14. (a) What is social influence analysis? Outline the steps in social influence analysis with an example.

Or

- (b) Outline the Bayesian probabilistic model with an example.

15. (a) Outline the steps to classify tweets with an example.

Or

- (b) Present an outline of social network analysis for biometric template protection.

PART C — (1 × 15 = 15 marks)

16. (a) Outline the steps to represent social relations using graphs with an example.

Or

- (b) Present an elaborate note on influence maximization for viral marketing in social networks.